REMARKS:

Upon entry of the instant amendment, claims 3-5, 7, 9, 11, 13-15, and 20-33 will be pending. Claims 16-19 have been canceled, claims 3, 9, 11, and 13-15 have been amended, and new claims 20-33 have been added. No new matter has been introduced. An action on the merits is respectfully requested.

In the Office Action dated July 8, 2004 (hereinafter referred to simply as the "Office Action"), the Examiner rejected claims 3-5, 7, 9, 11, and 13-14 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,086,385 to Launey et al. (hereinafter referred to as "Launey"), in view of U.S. Patent No. 5,737,485 to Flanagan et al. (hereinafter referred to as "Flanagan"). In addition, the Examiner rejected claim 15 under 35 U.S.C. § 103(a) as being unpatentable over Launey in view of Flanagan and further in view of Seidl (hereinafter referred to as "Seidl"). These rejections are respectfully traversed with respect to the claims as amended (and vis-à-vis the new claims presented) herein.

The present invention is directed to an apparatus and method for sending output information to a remote terminal in response to an input signal of a sound. The apparatus has a first memory block that stores characteristic data representing characteristics of various sounds. There is also a second memory block that stores various items of output information associated with the characteristic data of the various sounds. The apparatus further has an input device that collects a sound and provides an input signal of the collected sound. An analyzer device extracts characteristic data from the input signal of the collected sound. A controller device then operates according to the extracted characteristic data for addressing the first memory block and the second memory block to identify the item of the output information corresponding to the

collected sound. The apparatus further has a transmitter device that transmits the identified item of the output information to the remote terminal.

According to the instant invention, a new sound and a corresponding item of output information can be registered to update the first memory block and the second memory block. When updating the output information, the controller device registers the extracted new characteristic data into the first memory block and registers the corresponding item of the output information into the second memory block. In addition, the user is able to command the operation of the information announcing apparatus from a remote location by using the remote terminal to select and set the operation mode of the apparatus.

In another embodiment, the apparatus contains a plurality of input devices, such as microphones, that are spatially-distributed in different locations and are configured to collect a sound from a single source and generate respective input signals of the same sound. Given the multiple input devices, the invention also includes the capability to detect and identify the location of the sound source. Here, a detector device processes the (plurality of) input signals provided by the (plurality of) spatially-distributed input devices to detect the source location of the sound. Such processing entails comparison of respective sound powers of the input signals with each other, followed by detection of the source location of the sound based on the comparison results.

At least one analyzer device extracts characteristic data from at least one of the input signals of the collected data, and the controller device operates according to the extracted characteristic data to identify the item of the output information (e.g., from the second memory

block) that corresponds to the collected sound. The identified item of the output information is then transmitted, along with the detected source location of the sound, to the remote terminal.

Also included is a canceler device. Here, specific items of sounds which should not be detected by the apparatus are initially stored. Then, during operation, if an unwanted sound is received by one of the plurality of input devices, the canceler device cancels the transmission of the output information, which may include the sound source location. Thus, the canceler device is configured to check whether the output information associated to the sound is true or false according to the source location of the sound, and to cancel transmission of the output information if the output information is false. In this way, announcement of an unwanted sound (i.e., one that should not be inherently detected) is cancelled, thereby preventing a false alarm.

Claims 3-5, 7, 9, 11, and 13-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Launey, in view of Flanagan. However, it is respectfully submitted that Launey and Flanagan do not, either individually or in combination, disclose the inventions of claims 3-5, 7, 9, 11, and 13-14 as amended herein.

Launey discloses an automation system to control various appliances and subsystems within a home or commercial space. More specifically, Launey is directed to a system and method for operating various appliances through different kinds of input devices, including a microphone. Thus, in Launey, an input is used to trigger an automatic action in an appliance as the output.

Although Launey discloses "multiple voice recognition locations" (*see* col. 15, line 37), there is no disclosure therein of a plurality of input devices in different locations, wherein all of the input devices are configured to collect the same sound from the same source location, and

then provide input signals of the same sound emitted from the source location. Moreover, there is no disclosure whatsoever of identifying and transmitting the detected source location of the sound to a remote terminal. Thus, although the disclosure of Launey may arguably include the use of a plurality of microphones as input devices, each input device is used to activate a separate appliance as an output.

Flanagan is directed to a neural network that is trained to transform distant-talking "cepstrum coefficients", i.e., speech features, derived from a microphone array receiving speech from a speaker distant therefrom, into a form that is to be substantially similar to close-talking cepstrum coefficients that would be derived from a microphone close to the speaker, so as to provide robust hands-free speech and speaker recognition in adverse environments with existing speech and speaker recognition systems which have been trained on close-talking speech. Thus, the invention in Flanagan aims to capture speech from a distant speaker and provide an output that sounds substantially similar to that which would have been obtained had the speaker been "close-talking".

In this regard, the system of Flanagan incorporates a microphone array, a neural network, and a speech recognizer. The latter is trained on close-talking speech by having a speaker speak into a microphone from a distance of less than twenty inches. *See* Flanagan, col. 3, lines 53-54. In addition, the microphone array contains a total of 29 microphones that are positioned so as to be harmonically nested over four octaves in a linear array that is about 176 centimeters long. Id., col. 5, lines 15-27. The goal, thus, is to nest the array such that the microphones can be shared across the four octaves, thereby reducing the number of microphones that must be positioned within the narrow length of about 176 cm.

With this set-up, speech features are extracted from the microphone array (i.e., array speech) and inputted into the input nodes of the neural network. Similarly, speech features from the output of the single microphone (i.e., close speech) are extracted and inputted to the output nodes of the neural network. The neural network is then used to transform the cepstrum coefficients from the microphone array to those appropriate to close-talking so as to approximate matched training and testing conditions. In this way, the invention aims to provide a recognition accuracy for a distant-talking speaker in a noisy/reverberant environment which is comparable to that obtained in close-talking, quiet laboratories.

With the above as background, the Applicant respectfully maintains, as discussed in detail in the Applicant's response to the previous Office Action dated November 26, 2003, that neither Launey nor Flanagan constitutes relevant art vis-à-vis the pending claims, each of which recites detection/identification and transmission of the source location of the sound. Put another way, the very point of this aspect of the present invention is to identify the <u>single</u> source location of the input sound that is collected, <u>and to provide this information for use along with the output information</u> that corresponds to the collected sound.

In sharp contrast, the Flanagan invention is not at all concerned with the source location of the sound, let alone detection and/or transmission of information related thereto. In fact, the very point of Flanagan is to normalize, or neutralize, the source such that, regardless of the location of the source, the output will mimic an output that would be produced if the input were that of a close-talking input. In short, Flanagan teaches away from every single invention covered by the pending claims of the instant application. As such, the Applicant respectfully submits that Flanagan is <u>not</u> relevant prior art vis-à-vis the instant invention.

Nevertheless, even if Flanagan were, *arguendo*, relevant, Launey and Flanagan disclose completely different systems with vastly disparate applications. More specifically, whereas Launey is directed to multiple-source inputs to control multiple appliances (as outputs), Flanagan is directed to single inputs to provide corresponding normalized outputs of the same input, without providing any additional useful output information, let alone control information, or information relating to source location. As such, the Applicant respectfully maintains that the Launey and Flanagan references cannot properly form the basis of a 35 U.S.C. § 103(a) rejection as there is no suggestion whatsoever that the two references may be combined. *See, e.g.*, In re Jones, 958 F.2d 347, 351, 21 USPQ2d 1941, 1943-44 (Fed. Cir. 1992) ("Before the PTO may establish *prima facia* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art.").

In the Office Action, the Examiner stated, at page 3, that:

> The argument (lines 4-5 of page 20 in the response) that 'source' refers to speaker is in conflict with the previous arguments that 'source' is location. The Examiner maintains the rejection that the 'source' of the signal is identified and sent.

However, the cited section of the response appears to have been misunderstood and/or misquoted by the Examiner. Specifically, in the response to the Office Action dated November 26, 2003, the Applicant stated:

> The Applicant also notes that both Launey and Flanagan are related to applications where the 'source' is already known, i.e., the speaker in each of the references is the source. Thus, there is no need, or use, in either Launey or Flanagan for identifying the 'source' of the input information and, as such, there is not, and there cannot be, any disclosure in these references of transmission of output information 'together with the source location of the sound'. *See* Applicant's response, page 20, lines 3-7. (Emphasis in original).

Thus, there is no conflict, or contraction, on the part of the Applicant. Rather, the Applicant pointed out that, in each of the references, i.e., Launey and Flanagan, the "source", which is the speaker, is already known. This, of course, is directly contrary to the invention claimed herein, in which the "source" is unknown to the end-user who is only notified of the location of the source (via the terminal) upon transmission/reception of the output information.

As discussed in the response to the November 26, 2003 Office Action, as well as hereinabove, the Applicant maintains that Launey and Flanagan do not constitute relevant prior art, that they cannot be properly combined for a rejection under 35 U.S.C. § 103(a), and that, even if they did constitute relevant prior art and could be properly combined, they do not, either individually, or in combination, disclose or teach all of the limitations of the pending claims.

Nevertheless, in order to advance prosecution, and without prejudice to the Applicant's right to re-assert the arguments mentioned immediately above, the Applicant has amended claims 3, 9, 11, 13, and 14 herein to recite the additional limitation of "registering" a new sound and its corresponding item of "output information" to update the respective memories recited in the claims. As will be noted, this limitation is similar to a feature which was recognized as novel in the Examiner's reasons for allowance in the instant application's parent case, i.e., application serial No. 09/361,094, now U.S. Patent No. 6,421,644.

In light of the above, it is respectfully submitted that claims 3, 9, 11, 13, and 14, as currently amended, distinguish over the cited references, and are therefore in condition for allowance. As such, it is respectfully requested that the rejection as to these claims be withdrawn. In addition, since claims 4, 5, 7, and 15, as amended, depend directly from amended claim 3, it is respectfully submitted that these claims also distinguish over the cited references.

Therefore, the Applicant respectfully requests that the rejections as to claims 4, 5, 7, and 15 also be withdrawn as these claims are believed to be in condition for allowance.

The Applicant also expresses his appreciation to the Examiner for pointing out that the "single sound" feature may not have been clearly recited in the claims as filed. The Examiner's point is well-taken and, to this end, the Applicant presents herein new claims 28 - 33, each of which explicitly recites (either directly, or through a base claim) the single-sound limitation. Thus, new claim 28, e.g., recites (emphasis added):

> An information apparatus for notifying output information to a remote terminal in response to an input signal of a <u>single sound</u>, comprising:
>
> a first memory block configured to store characteristic data representing characteristics of various sounds;
>
> a second memory block configured to store various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound;
>
> a plurality of input devices that are spatially distributed in different locations to collect the <u>single sound</u> from a source location, and that respectively provide input signals of the <u>same sound</u>;
>
> a detector device that processes the input signals provided from the spatially distributed input devices to detect the source location of the <u>single sound</u>;
>
> an analyzer device that extracts characteristic data from at least one of the input signals of the collected sound;
>
> a controller device that operates according to the extracted characteristic data for addressing the first memory block and the second memory block to identify one of the items of the output information corresponding to the collected sound; and
>
> a transmitter device that transmits the identified one of the items of the output information to the remote terminal together with the detected source location of the <u>single sound</u>.

Again, in light of the arguments presented by the Applicant previously, as well as hereinabove, it is respectfully submitted that new claims 28-33 distinguish over the cited references, and are therefore in condition for allowance.

As noted previously, new claims 20 - 27 are also presented herein. Claim 20 recites (emphases added):

> An information apparatus for notifying output information to a remote terminal in response to an input signal of a sound, comprising:
>
> a first memory block configured to store characteristic data representing characteristics of various sounds;
>
> a second memory block configured to store various items of output information in correspondence to the characteristic data of the various sounds such that each one of the items of the output information is associated to each sound;
>
> a plurality of input devices that are <u>spatially distributed at different locations</u> to collect the sound from a source location, and that respectively provide input signals of the same sound;
>
> a detector device that processes the input signals provided from the spatially distributed input devices by comparing respective sound powers of the input signals with each other to detect the source location of the sound based on the comparison results;
>
> an analyzer device that extracts characteristic data from at least one of the input signals of the collected sound;
>
> a controller device that operates according to the extracted characteristic data for addressing the first memory block and the second memory block to identify one of the items of the output information corresponding to the collected sound;
>
> a transmitter device that transmits the identified one of the items of the output information to the remote terminal together with the detected source location of the sound; and
>
> <u>a canceler device configured to check whether the output information associated to the sound is true or false</u> <u>according to the source location of the</u>

> <u>sound</u>, and to <u>cancel transmission</u> of the output information <u>if the output information is false</u>, so as to prevent a false alarm.

As will be noted, the limitation of a "canceler device" is similar to that which appears in claim 4, as originally filed (and as currently pending). In this regard, in rejecting claim 4, the Examiner stated that (*see* Office Action, p. 7, Par. 6; emphases in original):

> Regarding claim 4, the limits of the claim are the same as those for claim 3. <u>Launey *et al*</u> (operating figure 15b in accord with column 28 lines 55-58) reads on the feature of *a canceller device configured to check whether the output information associated to the sound is true or false* (for example, see 878 in figures 8b-c) *according to the source location of the sound* (for example, see 792 → 794 in 7d and 412-424 → figure 7m), *and to cancel transmission of the output information if the output information is false.*

This rejection, however, is respectfully traversed as the sections of Launey that are cited by the Examiner have little, if anything, to do with a canceler device that is configured to: (1) check whether the output information, i.e., the <u>information that corresponds to an input signal of a sound</u> (<u>not from the user</u>) and that is <u>transmitted to a remote terminal</u> <u>for use by the user</u>, is true or false <u>according to the source location of the sound</u>; and (2) <u>cancel transmission of the output information</u> if the output information is false.

For example, col. 28, lines 55 - 58 of Launey simply provides that:

> All tasks are structured in approximately the same manner and consist of the following pieces: (1) data validation routine: (2) immediate response routines: (3) neutral state: and (4) contextual states. Each of those components is described further below.

In addition, "Fig. 15b shows a flow chart of the Immediate Response routine 1512 and also the Neutral State". *See* Launey, col. 47, lines 14-16. Thus, although it is difficult to decipher from the Examiner's citation as to what, specifically, the Examiner is referring to as the

actual basis for his rejection, it appears that the Examiner asserts that the "data validation routine" and/or the "neutral state" somehow purportedly disclose the "canceler device" limitation at issue.

In this regard, Launey provides that (*see* col. 28, line 61 - col. 29, line 19; emphases added):

> The data validation routine (DVR) consists of a sequence of states, in which each state evaluates one byte of data. If the byte is rejected, the state resets the DVR. If the byte is not rejected, the state increments the state variable to the next DVR state and returns to the Polling Loop, thus allowing the next byte of data to cause the next DVR state to execute. The communication protocol for that task's device is encoded into the DVR, in order to form the criteria by which the DVR will accept or reject data. The DVR also simultaneously decodes the data to provide necessary information to the remainder of the task.
>
> . . .
>
> The Neutral State is a catchall state which is executed when the Task has not been placed in any other (contextual) state. Most unpredictable and unexpected events, such as a fire alarm, are processed by a Neutral State. The Neutral State also serves to ignore garbled or meaningless transmissions.

Clearly, the data validation routine, as well as the Neutral State, appear to evaluate a message on a signal level, wherein the signal itself is either an incomplete byte of data, and/or it is "garbled or meaningless". This can be further seen from the specific example provided in Table 1, which provides that: "Data Validation: . . . 1st Synch byte: Must be equal to 52 or data is rejected; 2nd Synch byte: Must be equal to 126 or transmission is rejected". *See* col. 29, lines 41-45. As such, no "canceler device" as the same is recited in the pending claims is specifically disclosed or taught in the cited sections of (or anywhere else in) Launey.

In addition, in accordance with the pending claims, e.g., claims 4 and 20, the canceler device must "check whether the output information associated to the sound [i.e., the input] is true

or false." That is, once a sound, does is not the user's input, has been collected, the output information that corresponds to that sound must be checked in order to determine whether the output information should be transmitted to the user via the remote terminal. In Launey, in sharp contrast, what is being "checked", if at all, is a signal that is the result of an input onto a touchscreen (i.e., not a sound input) by a user.

Moreover, the determination as to whether to transmit, or cancel transmission of, the output information to the remote terminal must be made on the basis of the specific "source location of the sound". Such a basis for checking and cancellation is simply not existent in Launey; this, of course, is due in no small part to the fact that, as discussed previously, Launey, as well as the other cited references, have no use for, and, as such, do not extract and/or utilize, the specific identification of the input sound's source location.

To be complete, it is noted that reference numeral 878 in Figures 8b-8c refers simply to the "Neutral State" which, as explained above, has little, if anything, to do with the claimed cancellation device and/or operation. At most, the Neutral State provides for "ignoring" of certain inputs by the user which are not recognized by the system based on commands that have been previously indicated as acceptable (i.e., expected) by the system. In other words, there is no dynamic sound recognition and checking/cancellation of output-information transmission as in the instant invention.

Similarly, with regard to reference numerals 792 and 794 in Figure 7d, Launey provides that (emphases added):

> If, as discussed in connection with FIG. 7c, the main menu state is initialized at 786, the master touchscreen subroutine jumps to the initialization entry point 786 shown on FIG. 7d, which is a flow chart of the general Contextual State of the master touchscreen task or subroutine. After the initialization entry point, the

> system sends a "prompt" phrase over the speaker 788, such as "enter your selection", or any other phrase preselected by the user and stored as a data file on the system hard drive. The general Contextual State master touchscreen subroutine then loads the main menu screen and indicates the status of the menu options, if necessary 790. The speech recognition vocabulary, if applicable, is then loaded 792 and the system then sets the state to the current Contextual State entry point 794 and returns to the top of the Polling Loop 500.

Again, while, in the context of the "canceler device" limitation, the purpose of the Examiner's citation of reference numerals 792 and 794 in Figure 7d is not understood, it will be noted that, if anything, the above-quoted section clarifies that the user provides manual inputs into the system, and then is prompted for further actions. Again, in addition to being devoid of any reference to a sound input, the teaching of the above-quoted section is contrary to the requirements of the instant invention whereby: (1) the sound is from a source other than the user; and (2) what is checked is the output information associated with the sound, and what is potentially cancelled is transmission of that information to the user--in Launey, it is the input command from the user that is checked and potentially cancelled. And, in any event, there is again no disclosure of checking and/or cancellation based on (the previously unknown) source location of the input sound.

Finally, the Examiner's reference to "412-424 → figure 7m" is equally unclear. Figure 7m does not contain the reference numerals 412 - 424. Nevertheless, the specification provides (*see* col. 35, line 44 - col. 36, line 2; emphases added):

> FIGS. 7g through 7n depict a flow chart for the security floor plan sub-menus for the master touchscreen subroutine. At the initialization entry point 410, the user has selected a security/fire option from the main menu and has selected from the security management menu shown in FIG. 3g one of the three levels shown of the home. The security floor plan sub-menu subroutine then stores the selected floor number, loads the selected floor plan screen data, speaks a responsive phrase through the speaker and voice synthesizing system, such as "Please wait for

> response form the security system" <u>and then displays a "please wait" message 412</u>. The subroutine then sends a "zone map request" to the security/fire interface shown and described in connection with FIGS. 8a-8c, sets the Security/Fire Task to the "zone map request" state; and inserts a "security response expected" ISIS event into the ISIS queue 414. The Master Touchscreen Task state is then set 416 and the system returns to the top of the Polling Loop 500.
>
> When a response to a zone map request occurs on queue 1 or 2 of the Polling Loop, the Security/Fire Task (Task 1 or Task 2) jumps (at 898 in FIG. 8c) to the <u>security floor plan sub-menu subroutine, entering at point 424</u>. Touches occurring while the system is waiting for a response from the Security/Fire Interface will show a cursor 799, but will not be compared with the touch boxes on the menu.

Based on the above, it is respectfully submitted that Launey does not disclose, teach, or suggest *a canceler device configured to check whether the output information associated to the sound is true or false according to the source location of the sound, and to cancel transmission of the output information if the output information is false, so as to prevent a false alarm*, recited, e.g., in claim 20.

In addition, claim 20 recites *a plurality of input devices that are spatially distributed at different locations to collect the sound from a source location, and that respectively provide input signals of the same sound;* and *a detector device that processes the input signals provided from the spatially distributed input devices by comparing respective sound powers of the input signals with each other to detect the source location of the sound based on the comparison results.*

The former, for which support may be found at page 26, lines 23-24 of the specification (as well as the claims) as filed, clarifies that, in contrast to the disclosure in Flanagan, where 29 microphones are purposely overlapped in a linear array of about 176 cm, the plurality of input devices of the instant invention are spatially distributed over different locations to provide the

capability of collecting sound inputs from a wide area. *See, also*, specification as filed, p. 25, lines 1-7. The second limitation noted above also clarifies the manner in which the detector device processes the input signals to identify the source location of the sound.

In light of the above, it is respectfully submitted that claim 20 distinguishes over the cited references and, as such, is in condition for allowance. In addition, claims 21-23 depend directly from claim 20, and claims 24-27 include similar limitations to those of claim 20. Therefore, it is respectfully submitted that claims 21-27 also distinguish over the cited references and, as such, are in condition for allowance, at least for the same reasons as those discussed above with respect to claim 20.

It is noted that many of the pending claims also distinguish over the cited references for other, additional reasons. However, as noted previously, in the interest of advancing prosecution, the claims have been amended, and new claims have been presented, with limitations that are believed to distinguish the claims over the cited art. Thus, although only one example of such other grounds for traversal will be provided immediately below, this is only an abbreviated traversal, and the Applicant reserves the right, without prejudice, to traverse all of the Examiner's rejections.

With the above in mind, with respect to claim 7, e.g., the Examiner asserts that (*see* Office Action, p. 8, Par. 8; emphases in original):

> <u>Launey *et al*</u> teaches the features of *a receiver device configured to receive the output information transmitted from the information apparatus* (column 15 lines 30-33); *a stimulator device*, (with either the spoken messages of column 23 line 48 to column 24 line 9, and/or the monitor 56 of figure 1) that is *activated when the output information is received by the receiver device for physically stimulating a user of the remote terminal to draw attention of the user to the output information* (see column 9 line 65 through column 10, line 2); such

> monitor being *a display device that is configured to display the received output information such that the stimulated user can readily read the output information.*

Clearly, claim 7 recites, inter alia, three different, and separate, limitations: (1) a receiver device; (2) a display device; and (3) a stimulator device.

The Examiner asserts that the video display monitor (56), referenced in col. 9, line 65 - col. 10, line 2 of Launey, is the "display device" called for in claim 7. However, the latter provides that video display monitor (56) "provides the user with information regarding the operation of the home automation system". That is, the video display monitor (56) provides an interface <u>for the user to provide input to</u> the home automation system. Claim 7, on the other hand, clearly recites that the display device displays the output information, i.e., the information that is generated <u>as a result of the input sound</u>, such that <u>the user can readily read the output information</u>. In other words, whereas, in Launey, the user provides input to the monitor to actuate the home automation system, in the instant invention, the input sound (i.e., not the user) generates output information that is provided to the user as an end result. This limitation of claim 7, therefore, is not taught by Launey.

In addition, given that the monitor (56) is asserted by the Examiner to be the "display device", it cannot also be the stimulator device, as this is a separate and distinct limitation of the claim. Thus, according to the Examiner, the only other possibility is that "the spoken messages of column 23 line 48 to column 24 line 9" constitute the stimulator device. The latter, in turn, provides (emphases added):

> The present home automation system also provides for the use of <u>spoken messages as cues for touchscreen use, providing a great level of ease of use for non-technical users of the system</u>. <u>The present home automation system provides spoken cues to help guide the user when using touchscreens to the next step.</u> The

> present home automation system incorporates hardware and software to support the playback of high-fidelity, digitally recorded messages to the user. For example, when the user touches one of the touchscreens 16 to request control of a type of function, a spoken phrase is played through one of the remote speakers 66 as each new screen graphic is displayed. For example, on the main menu, the user may select the "Security Management" option. If the user lived in a large house, his next step might be to select a floor or area of the house he wishes to control. By speaking the phrase, "please select your floor" upon displaying a floor selection menu, the user is assisted in continuously understanding the next function to be performed.
>
> The foregoing function of the system is performed in software by calling a speech subroutine as each new graphics screen is displayed. The speech information is stored in the extended RAM memory of the processor 10, which has been previously described. The home automation system utilizes the speech processor 58 and a remote speaker 66 located at each touchscreen location in order to provide the spoken cues to the user while he is using the touchscreen.

As clearly described above, the "spoken words" referenced by the Examiner provide guidance to the user for inputting information to the home automation system. However, claim 7 requires that the stimulator device *be activated when the output information is received by the receiver device* for physically stimulating *a user of the remote terminal* to *draw attention of the user to the output information*. That is, the "spoken words" of Launey's system are not produced when output information is received by the receiver device; rather, the words are produced in order to help the user input the required input information. In addition, as recited, the stimulator device is meant to draw attention to the user of the remote terminal. However, in Launey, the user is at the terminal, inputting the information. Moreover, in Launey, it is not clear what the output information is. However, what is clear is that, contrary to the requirement of claim 7, the output information in Launey cannot both cause activation of the stimulator device (when the information is received) and be available as information for the user. It is therefore respectfully submitted that the stimulator-device limitation of the claim is also not taught by Launey.

Finally, the Examiner asserts that col. 15, lines 30 - 33 of Launey "teaches the feature of a receiver device configured to receive the output information transmitted from the information apparatus". Keeping in mind that the receiver device recited in claim 7 is part of the *remote terminal* of the information apparatus, and noting further that the Examiner considers Launey's "different devices in different parts of the house" to constitute the remote terminals (*see* Office Action, p. 3), the cited section of Launey provides (*see* col. 15, lines 15 - 48; emphases added):

> <u>In order to implement the use of multiple types of user devices</u> in a modular manner <u>which allow for different types of devices in different parts of the home to be used to control the home automation system described herein</u>, <u>the following equipment may be simultaneously connected to the home automation system central processor</u>: (1) a standard PC computer keyboard 18; (2) plurality of dry contact switches 28a and 28b may be connected to the central processor 10 by means of a solid state input module and a pull up resistor to a Metrabyte MSSR-32 solid state relay board which is shown as process controller 26b, which is in turn connected to the parallel interface 24b, which may be an MDB-64 parallel controller connected to the AT bus 12 of the central processor 10; (3) multiple Elographics Accutouch touchscreens 16a and 16b connected serially to the central processor 10 by means of the Digicom COM/8 multiport serial interface 14; (4) <u>a plurality of hand-held remote receivers 20 may be serially connected to the central processor 10 by means of the serial interface 14</u>; (5) a telephone system 62 with a plurality of hand sets, or a single line standard telephone system may be connected to the central processor 10 through a telephone interface 60 and the speech processor 58 and the AT bus 12; (6) multiple voice recognition locations may be connected to the central processor 10 through Crown PZM microphones or other remote microphone systems 64 which are in turn connected to respective TISPEECH speech processors 58 running standard voice recognition software which themselves are connected by the AT bus 12 to the central processor 10; and (7) multiple voice response locations with remote speakers 66 which provide spoken information and instructional cues to the user. All of the foregoing equipment is simultaneously connected to the central processor 10 and may be used to perform a plurality of functions.

Clearly, the above list, including the "receivers" referenced by the Examiner, are devices for controlling the home automation system. In other words, these devices are "input" devices, wherein the user inputs, e.g., a control command. Claim 7, however, requires that the receiver device receive the <u>output</u> information transmitted from the information apparatus.

In light of the above, it is respectfully submitted that the cited references do not, either individually or in combination, render claim 7 obvious. This is also true with respect to claims 22 and 31. As such, the Applicant respectfully requests that the rejection as to claim 7 be withdrawn, as this claim, as well as claims 22 and 31, are believed to be in condition for allowance.

////

////

////

////

////

////

////

////

////

////

////

////

It is believed that claims 3-5, 7, 9, 11, and 13-15, as amended herein, as well as new claims 20-33, are in condition for allowance, and a favorable action is respectfully requested. If, for any reason, the Examiner finds the application other than in condition for allowance, the Examiner is requested to call one of the undersigned attorneys at the Los Angeles, California telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance.

Date: January 10, 2005

By: Roger R. Wise

Roger R. Wise
Registration No. 31,204
Attorney for Applicant(s)

PILLSBURY WINTHROP LLP
725 South Figueroa Street, Suite 2800
Los Angeles, CA 90017-5406
Telephone: (213) 488-7100
Facsimile: (213) 629-1033